### REVIEW

**OPEN ACCESS** 

# The Versatility of Cow Ghee- An Ayurveda Perspective

Ankita Mahakalkar<sup>1\*</sup>, Pranita Kashyap<sup>1</sup>, Ram Bawankar<sup>1</sup> & Bhushan Hatwar<sup>2</sup>

<sup>1</sup>Shri Rawatpura Sarkar Institute of Pharmacy (Kumhari) (C.G.) <sup>2</sup>Bansal College of Pharmacy, Kokta Anand Nagar, Bhopal (M.P.)

Email Id: ankita.mahakalkar @gmail.com



#### Abstract

Cow Ghee is an excellent base for preparing Ayurvedic medicines. The virtues of this clarified butter and its ability to reach within the deepest of tissues in the human body make it an ideal base to prepare Ayurvedic formulations targeting specific parts/organs/tissues of the body. There are many other uses of Cow ghee within the Ayurvedic science that make it an invaluable part of this ancient medical science.

Cow Ghee utilized in Ayurveda, used for numerous medical applications, including the treatment of allergy, skin and respiratory diseases. Cow Ghee is also known to retard the undesirable effects of drugs besides cancelling the effect of toxins in the body. However, Cow ghee has to be used in its optimal volume and form in order to increase the efficacy of the Ayurvedic preparations.

Keywords- Cow Ghee, Medicinal Value of Cow Ghee, Ayurveda.

### Introduction

Traditional system of medicine, evolved over the ages, had been completely looking after the healthcare of the world until the advent of allopathic system of medicine. As this system used knowledge of modern biology and chemistry, for both discovery and treatment, it found fast acceptability and now occupies significant space in the area of healthcare. In spite of this, the contribution of the traditional system of medicine to healthcare continues to be enormous. Fats and fatty acids are the building block components of most of the lipids, which constitutes biso-membranes. They are active in providing fluidity and flexibility to the membrane and hereby assisting transportation of materials across it<sup>1</sup>. Fats and fatty acids have been explored in pharmaceutical research for modulation of drug release from different dosage forms.

Cow Ghee is a semi-liquid form of butter without water content, lactose and other milk solids. It is prepared by gently heating butter until it becomes a clear golden liquid. Cow Ghee is light, pure and does not become rancid for a long time. Cow Ghee is sweet in taste, cold in nature and has a sweet after taste. It is considered soothing, soft, and oily.

### Cow Ghee - Base as Pharmaceutical Aid

Cow Ghee is an excellent base for preparing Ayurvedic medicines. The virtues of this clarified butter and its ability to reach within the deepest of tissues in the human body make it an ideal base to prepare Ayurvedic formulations targeting specific parts/organs/tissues of the body. There are many other uses of Cow ghee within the Ayurvedic science that make it an invaluable part of this ancient medical science.

Cow ghee also known as clarified butter, is a traditional adjuvant/ vehicle described in Ayurveda. It is an excellent anupana (vehicle) for transporting the drugs to the deeper tissue layers of the body. Proper digestion, absorption and delivery to a target organ system are crucial in obtaining the maximum benefit from any therapeutic formulation; the lipophilic action if Cow ghee facilitates transportation to a target organ and final delivery inside the cell since the cell membrane also contains lipid.

### **Absorption of Cow Ghee**

Cow ghee is oil that can bond with lipid-soluble nutrients and herbs to penetrate the lipid-based cell walls of the body. Thus, it increases the potency of certain herbs by carrying the active components to the interior of the cells, which helps to increase Marrow, Semen & Ojas (Immunity). It is also used as a carrier of nutrients to be absorbed across the cell membrane. The potency and efficiency of a drug is usually dependent on its

• Ionization

- Solubility in body fluids
- Blood flow changes on administration

Sometimes a water based drug will not be able to diffuse properly in the cerebrospinal fluid (CSF) or other body parts. However, with Cow ghee as a solvent, an Ayurvedic formulation would reach the targeted areas with more efficiently. Cow Ghee based medicines are digested and absorbed more easily. The antioxidant properties of ghee help prevent damage of nervous and brain tissues besides retarding the progress of degenerative diseases. The cholesterol problem does not raise its ugly head in the administration of ghee as it is found that absorption of Cow ghee increases only the 'good' (HDL) and not the 'bad' cholesterol (LDL) level. This is because Cow ghee is capable of increasing the range of vitamins soluble in fat, like Vitamin E and thereby prevents the oxidation of LDL. Due to this there is no conceivable change in the lipid profile. All this leads to higher chances of prevention of atherosclerosis, stroke or heart attack.

# Cow Ghee & Ayurveda

# As per (API,Part-1Vol-IV) Ayurveda properties of Cow ghee are as follows-

Rasa : Madhura, Guna : Guru, Snigdha, Mirdu, Veerya : Sita, Vipaka : Madhura, Karma : Agnideepana, Anubhisyyandi, Ayushya, Balya, Cakshushya, Deepana, Hidya,Kaantiprada, Medhya, Ojovardhaka, Rasayana, Rucya, Shleshmavardhana, Snehana, Shukravardhaka, Tejobalakara, Tvacya, Vatapittaprashamana, Vayaasthapna, Vishahara, Virsya

Cow Ghee is known to be digested 96% which is highest as compared to all other vegetable or animal source fats. It contains antioxidants like Vitamin E and beta carotene (600IU) besides other nutrients like phospholipids, diglycerides and triglycerides.

Cow Ghee is regularly used in formulations in Ayurveda especially for chronic and degenerative ailments. It is either used as a part of a formulation as a nourishing, extracting, assimilating and/or absorbing agent.

Cow Ghee, an integral part of the Ayurvedic health science is considered a premier Rasayana. A food that helps maintains good health, vitality and longevity. Cow Ghee is excellent for balancing Vata (air) and Pitta (fire) related doshas (humors). It is satvic (healthy) food, which has a pure influence on mind, body and spirit. Vata type people can enjoy more ghee than Pitta (fire) type who in turn can enjoy more ghee than Kapha (Water) types. Cow Ghee also brings out the aroma and flavor of many foods. Cow Ghee contains no water, so it does not spoil easily and hence preserves the original freshness and potency of herbs and foods. Therefore, no refrigeration is required for Cow ghee. It is ancient Ayurvedic and folk assumption that as Cow ghee becomes aged, though its taste becomes slightly bitter its effectiveness and healing properties increases. In many Ayurvedic classical formulation 5 to 10 years older Cow ghee is highly recommended.

### Medicinal use of cow ghee

Cow Ghee utilized in Ayurveda, used for numerous medical applications, including the treatment of allergy, skin and respiratory diseases. Cow Ghee is also known to retard the undesirable effects of drugs besides cancelling the effect of toxins in the body. However, Cow ghee has to be used in its optimal volume and form in order to increase the efficacy of the Ayurvedic preparations. Most Cow ghee based formulations in Ayurveda are aimed at treating ailments related to the nervous system, digestive system and for psychological ailments too. As per Ayurveda Cow ghee is very much benifical to human beings It loosen up and liquefy toxins and pacify humors (Doshas) in the skin and blood (called the outer disease pathway). It opens the small channels for dislodging and removing heavy toxins. Thus, toxins begin to drain from deeper tissues and start to flow in the gastro intestinal tract for elimination. It also lubricates and moistens the membranes and tissues. It protects tissues from damage, helps in the proper flowing of wastes and toxins from the body. People with a strong digestive power can use more ghee than those with a weak digestive system. As per Ayurveda the colon is related to all other organs and tissues. When the colon is cleansed and toned successfully, the entire body receives healing and rejuvenation. The colon is the main organ through which the body absorbs nutrients thus, a proper functioning colon is imperative for efficient assimilation of nutrients. Cow Ghee is beneficial & its benefits are mentioned in the Ayurveda For Example, it imparts the benefits of the best essential fatty acids without the problems of oxidized cholesterol, trans-fatty acids or hydrogenated fats. It is also resistant to free radical damage and is both salt and lactose free. It contains butyric acid, a fatty acid with antiviral and anti-cancer properties. Digestion- The Ayurvedic texts say that Cow ghee lubricates the digestive system and improves the digestive power because it helps enhance digestion without irritating the stomach and balance the stomach acids to maintain and repair the mucus lining of the stomach. Cow ghee aids proper digestion and nutrient assimilation. People who are lactose intolerant can generally consume Cow ghee.

Cow ghee is said to promote all three aspects of mental functioning-learning, memory and recall. The traditional texts also designate Cow ghee a medhya Rasayana, (Healthy and balanced fat in the body), beneficial for mental alertness and memory. It supports healthy vision, voice, intelligence and brain function.

Cow Ghee nourishes all dhatus (tissues), ojas (essence of tissues) and breast milk, as well as promoting strength, normalising the blood and lymph. In Ayurveda, it is the sweet taste which stimulates anabolic activity due to the predominance of the earth element. Cow Ghee's nourishing property and similarity to ojas help explain its importance in the Ayurvedic pregnancy regime, as well as for under nourished individuals.

However, any avirudda (incompatible) items would be taken care of by Cow ghee as an added ingredient<sup>2</sup>. As well as helping other ingredients to 'get along', Cow ghee helps to eliminate and neutralise the toxins, such as bacterial contamination. Such is Cow ghee's effect that Caraka describes Amrta Cow ghee as "ambrosia for curing all types of poisons"<sup>3,4</sup>.

# Medicinal value of cow ghee

Cow Ghee & oil are widely used in ayurveda system of medicine as mediums to administer herbal preparations. Herbs, pastes of herbs or decoction of herbs are infused in oil or Cow ghee and later administered to patients after diagnosing the condition of diseases.cow ghee, when churned from yogurt or butter milk, it is not only a perfect & healthy cooking medium, but also a wonderful medicine. In ayurveda, Cow ghee is known as 'amrita'(nectar) & considered the natural oil for all internal body mechanisms.<sup>7-9</sup>

- For body massage-abhyanga. Apply Cow ghee all over the body, rubbing into head, chest, limbs, joints & orifices. It will bypass the digestive system & allow the qualities of Cow ghee to penetrate directly into the deeper tissues. Massaging the skin creates endorphins or peptides, which enhances the body immune system. Regular abhyanga slows the aging process.<sup>10,12</sup>
- Cow Ghee is used in purvakarma (early panchkarma), where the small amount of Cow ghee is taken first thing in the morning by the practitioner to oleate the internal organs & dissolve the ama or toxic wastes in the tissues, allowing them to be to be carried to the digestive tract for elimination.<sup>10</sup>
- Cow Ghee is used as a carrier for herbs and bhasmas because of its supreme penetrating qualities and thus ability to carry these substances deep into the tissues.<sup>10</sup>
- One or two teaspoons first thing in the morning followed immediately with hot water produce a bowel movement. Two spoonfulls of Cow ghee in warm milk before bedtime soothing to the nerves and lubricates the intestines and facilitates the bowel movement in the morning.<sup>10</sup>
- In ancient India Cow ghee used for recovery from wounds. It can be applied on broken bones & bruises & effective against skin rashes.<sup>7,8,12</sup>
- Cow Ghee is excellent for scrapes & both type of burns i.e. fire or chemicals<sup>7,8,12</sup>.
- Cow Ghee is excellent for a gargle, to improve the health of the teeth & gums.<sup>7,8,12</sup>
- Cow Ghee can be used as a bath oil & an exquisite facial moisturizer.<sup>7,8,10,12</sup>

- In India it is said that if a few drops of Cow ghee are placed in the nostrils then nosebleed can be checked. If this is done twice in a day, then headache can be relieved.<sup>7,8</sup>
- Cow Ghee can be used in the eyes for tiredness or fatigue.<sup>7</sup>,
- The Cow ghee which has been kept for 10 years is called as "PURANA GHRITA" .It is widely used in treating epilepsy and other neuorological disorders.<sup>7,8</sup>
- The Cowghee which has been stored for more than 100 years is called as "KUMBHA SARPI" .The Cowghee which is stored more than 100 years is called as "MAHAGHRITA", which is used in chronic cough & disorders of eyes<sup>7,8</sup>.
- It helps ,balances the DOSHAS and stimulates regeneration of cells, simultaneously protecting the body from disease .Ingested through the nostrils; cow ghee stimulates the brain and reduces hair loss.<sup>7,8</sup>

# The Cow ghee should not be administered<sup>7,11</sup>

- In Tuberculosis
- Upper respiratory tract infections and bronchitis when mucous secretion is more
- Indigestion, constipation, fever, diabetes.
- Those with obesity should be very frugal in their use of ghee and those with high ama should not take ghee at all.

# CONCLUSION

Cow Ghee is an excellent base for preparing Ayurvedic medicines. The virtues of this clarified butter and its ability to reach within the deepest of tissues in the human body make it an ideal base to prepare Ayurvedic formulations targeting specific parts/organs/tissues of the body. There are many other uses of Cow ghee within the Ayurvedic science that make it an invaluable part of this ancient medical science.

Cow Ghee utilized in Ayurveda, used for numerous medical applications, including the treatment of allergy, skin and respiratory diseases. Cow Ghee is also known to retard the undesirable effects of drugs besides cancelling the effect of toxins in the body. However, Cow ghee has to be used in its optimal volume and form in order to increase the efficacy of the Ayurvedic preparations.

# References

1. M.Iwahashi, Y.Kasahara, H. Matsuzawa, J Phys Chem. B, Vol.104, pp.6186, 2000.

- 2. Vijayalakshmi B; Kumara Swamy BV; Shantha TR: Ayurvedic rationale of the Southern Indian vegetable soup Saaru or rasam. *Ancient Science of Life*, Vol 17 (3): pp. 207-213 ,January 1998.
- 3. Caraka- Samhita. Translated by Sharma RK and Bhagwan Dash, 7th ed. Varanasi, India Chowkhama Sanskrit Series Office: 532 Chikitsasthana 28, pp.242-249, 2002.
- 4. Reddy Ramachandra K. Bhaisajya KalpanaVijnanam, Varanasi, India: Chaukhambha Sanskrit Bhawan: pp.363, 1998.
- 5. http://www.amritaveda.com/learning/articles/ghee.asp.
- 6. http://www.positivearticles.com/Article/Properties-of-ghee-Clarifiedbutter-as-described-in-Ayurveda/48166.
- 7. http://www.ayurhelp.com/ayurveda/ayurvedaghee.htm.
- The Ayurvedic Pharmacopoeia of India, Part 1, Volume 6, 1st edition, published by government of India, Ministry of health & family welfare. Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homeopathy [Ayush], New Delhi, pp.204 - 205.
- 9. http://www.ayurvedicyogi.com/ghees-role-in-the-ayurvedic-diet/
- 10. R.A. Rajewski, V.J. Stella, Pharmaceutical applications of cyclodextrins. 2. *In vivo* drug delivery, *J. Pharm. Sci.*, 85, pp.1142-1169, 1996.
- 11. Mosher G. *et. al*, Complexation :Cyclodextrins, Encyclopedia of Pharmaceutical Technology, Informa healthcare, pp.671-692, 2007.
- 12. *In-vitro/In-vivo* Correlation for Extended-Release Oral Dosage Forms, Stimuli to the Revision Process, The United States Pharmacopeial Convention, Inc., pp.4160, 1988.